From:

Sent:

rsilver@biologicaldiversity.org Monday, February 25, 2013 11:11 AM

To:

Smith, DavidW

Subject:

Sierra Vista WWTP CWA complaint/NO!

**Attachments:** 

CWA complaint 20120517 ADEQ EMAIL SUBMISSION.pdf; CWA complaint 20120517 ADEQ

WEBSITE SUBMISSION.pdf; notice 20120517 FINAL.pdf

Robin Silver, M.D. Co-founder and Board Member Center for Biological Diversity PO Box 1178

Flagstaff, AZ 86002

Email: rsilver@biologicaldiversity.org

. ¥ 2

From:

Smith, DavidW

Sent:

Monday, February 25, 2013 11:59 AM

To:

Tinger, John

Subject:

FW: Sierra Vista WWTP CWA complaint/NOI

Attachments:

CWA complaint 20120517 ADEQ EMAIL SUBMISSION.pdf; CWA complaint 20120517 ADEQ

WEBSITE SUBMISSION.pdf; notice 20120517 FINAL.pdf

### Lemme know what you hear

David Smith
Manager
NPDES Permits Office (WTR-5)
U.S. EPA Region 9
75 Hawthorne Street
San Francisco, CA 94602
(415) 972-3464 (office)
(415) 972-947-3545 (fax)

**From:** <u>rsilver@biologicaldiversity.org</u> [mailto:rsilver@biologicaldiversity.org]

**Sent:** Monday, February 25, 2013 11:11 AM

To: Smith, DavidW

Subject: Sierra Vista WWTP CWA complaint/NOI

Robin Silver, M.D.
Co-founder and Board Member
Center for Biological Diversity
PO Box 1178

Flagstaff, AZ 86002

Email: rsilver@biologicaldiversity.org

From:

Smith, DavidW

Sent:

Monday, February 25, 2013 1:58 PM

To:

Tinger, John; Sakow, Richard

Cc:

Bose, Laura

Subject:

FW: Sierra Vista WWTP CWA complaint/NOI

Attachments:

CWA complaint 20120517 ADEQ EMAIL SUBMISSION.pdf; CWA complaint 20120517 ADEQ

WEBSITE SUBMISSION.pdf; notice 20120517 FINAL.pdf

Hi Guys- Here's the email I got from Dr. Silver about the Sierra Vista complaint. I understand John talked to you Rick, and that you were going to follow up with ADEQ to see whether and how they'd responded. I don't have a POV on what the right answer should be, but if/when you speak to ADEQ, please reinforce my view that:

1. Dr. Silver deserves a written response to his complaint if he hasn't received one already

2. I'd like to see how ADEQ responds as the issue of potential subsurface water linkages and their potential tie to NPDES permit requirements is getting significant interest nationally.

If you like, I'd be happy to call Mindy Cross or Linda Taunt to follow up. Either way, I need to get back to Dr. Silver this week in some way on this. Thanks.

David Smith
Manager
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Robin Silver, M.D.
Co-founder and Board Member
Center for Biological Diversity
PO Box 1178

Flagstaff, AZ 86002

Email: rsilver@biologicaldiversity.org

### **Robin Silver**

From:

Robin Silver [rsilver@biologicaldiversity.org]

Sent:

Thursday, May 17, 2012 11:58 AM

To:

'Bill Ellett (wje@azdeq.gov)'; Daniel Czecholinski (dc5@azdeq.gov); Linda Taunt

(taunt.linda@azdeq.gov)

Cc:

Doug Eberhardt (eberhardt.doug@epa.gov); Elizabeth Borowiec

(borowiec.elizabeth@epa.gov)

Subject:

Violation of the Clean Water Act by BuRec/Sierra Vista WWTP

Attachments:

PERMIT AQUIFER PROTECTION PERMIT NO P-101489 20110714.pdf; CWA complaint

20120517 ADEQ WEBSITE SUBMISSION.pdf; notice 20120517 FINAL.pdf

Contacts: Tracking:

Bill Ellett

Recipient

Read

'Bill Ellett (wje@azdeq.gov)'

Daniel Czecholinski (dc5@azdeq.gov)

Linda Taunt (taunt.llnda@azdeq.gov)

Read: 5/17/2012 12:16 PM

Doug Eberhardt (eberhardt.doug@epa.gov)
Elizabeth Borowiec (borowiec.elizabeth@epa.gov)

Bureau of Reclamation and the City of Sierra Vista are violating the Clean Water Act for operating a wastewater treatment plant that discharges reclaimed effluent into San Pedro River surface water without a National Pollutant Discharge Elimination System (NPDES) permit. They currently have an aquifer protection permit (attached) but no NPDES permit.

The ADEQ website allows filing of a complaint (attached) but no ability to attach documentation. Documentation is included in the attached ESA violation NOI.

Please include us on your list of interested/affected parties for all actions related to this violation, subsequent NEPA proceedings and the subsequent ESA consultation.

Thank you! robin silver

Robin Silver, MD Co-Founder/Board Member Center for Biological Diversity P.O. Box 1178

Flagstaff, AZ 86002-1178

Email: rsilver@biologicaldiversity.org web: www.biologicaldiversity.org

Phone: 602-799-3275 Fax: 928-222-0077



# CENTER for BIOLOGICAL DIVERSITY

May 17, 2012

Department of the Interior Secretary Ken Salazar FAX: (202) 208-6956

Bureau of Reclamation Commissioner Michael Connor

FAX: (202) 513-0309

Bureau of Reclamation Lower Colorado River Regional Director Lom Gray

FAX: (702) 293-8333

US Fish and Wildlife Director Dan Ashe FAX: (202) 208-6965 US Fish and Wildlife Southwest Regional Director Benjamin Tuggle

FAX: (505) 248-6910

US Fish and Wildlife Arizona State Director Steve Spangle FAX: (602) 242-2513

RE: US Bureau of Reclamation (BuRec) and US Fish and Wildlife Service (USFWS) violation of BuRed'Sierra Vista wastewater treatment plant's (a) increasing jeopardy to the endangered Huachuca Water Umbel, (b) the facility's adverse modification of San Pedro River Critical the Endangered Species Act (ESA) for failing to reinitiate consultation regarding the Dear Messrs. Salazar, Connor, Ashe, Tuggle, Spangle and Ms. Gray Habitat, and (c) the facility's inappropriate recharge location.

# EXECUTIVE SUMMARY

by excessive unmitigated local groundwater pumping.<sup>1</sup> The excessive local groundwater pumping intercepts water that would otherwise flow to the River providing its base flow.<sup>2</sup> Base flow is the surface water in a river that comes from the underground aquifer and seeps through the river banks to provide stream flow during the driest times of the year. San Pedro River base flow continues to The San Pedro River and its dependent imperiled and endangered species are jeopardized

River. <sup>4</sup> Both the Umbel and the River face Increasing jeopardy as unmitigated, local deficit groundwater pumping continues to grow and as new hydrological modeling definitively confirms the San Pedro's future demise without new mitigation. <sup>5</sup> Huachuca Water Umbel is an endangered plant that represents the health of the San Pedro

effluent recharge project." <sup>a</sup> USFWS concurred with BuRec's proposal based on qualifications that are no longer valid. USFWS assumed that (1) recharged effluent is not expected to appear in the San Pedro River for 200 years and that (2) resulting degradation of water' quality from reclaimed BuRec's proposal to "cost-share with the City of Sierra Vista construction and operation of an On January 25, 1999, USFWS issued an "Informal Section 7 Consultation" regarding effluent entering the River will not affect endangered Huachuca Water Umbel

Based on these qualifications, USFWS concurred with BuRec's determination that the project may affect, but is not likely to adversely affect the Huachuca water umbel" determination; and that Critical Habitat "is also not likely to be destroyed or adversely modified." USFWS concluded:

- "...Our [USFWS] conclusions are based on the following:
- ...2. Effluent recharge is not expected to appear in the surface flows of the San Pedro River for 200 years and resulting changes in water' quality are not expected to affect Huachuca water umbel."

USFWS' 1999 assumptions are no longer true. <sup>7</sup> They must be re-examined. <sup>8</sup> Reinitiation of consultation must now take place to end further violation of law and remove jeopardy. <sup>9</sup>



Reclaimed wastewater from the BuRec/Sierra Vista wastewater treatment plant discharging as surface water into San Pedro River tributary, Curry Draw. (© Robin Silver Photography) following 29 pages received but deleted here since requestor has this

<sup>&</sup>lt;sup>1</sup> ACOE 2005; BLM 2006; CEC 1999b; CEQ 1981; CBD v DoD 2002, 2011; Lacher 2011, 2012; Leenhouts et al 2006; SMCBD v DoD 1995; USFWN 1999b, 2007
<sup>2</sup> ACOE 1970, 1974, 2005; ADWR 1994, 1996; ASL 1994; BLM 2012; CBD v DoD 2002, 2011; Fort Huachuca 1994; Lacher 2011; USCS 1999, 2007

Lacher 2011; USCS 1999, 2007

<sup>2</sup> ADWR 1998; BLM 2010e; CEC 1999b; Lacher 2011; USCS 1999, 2006a, 2006b, 2012

<sup>3</sup> Castle & Cooke 2011; Fort Huachuca 2003; Lacher 2011; Sierra Viste Hereld 2006e, 2006b, 2006c

P.O. Box 1178 . Flagstaff, AZ 86002-1178 tel; (602) 799.3275 fax; (866) 677.7636 www.BiologicalDiversity.org Arizona . California · Nevada · New Mexico · Alaska · Oregon · Montana · Illnois · Minnesota · Vermont · WashIngton · DC

<sup>&</sup>lt;sup>8</sup> BuRec 2000; USFWS 1999b
7 Adams 2000; USFWS 1999b
7 Adams 2003; Baze at al. 2007; Australia 2007; BLM 2010b; Bobbink et al 1998; Brooks et al. 2003; Brown and Caldwell. 2009; BuRec 1999; Clark et al. 2007; Falkengran-Grarup 1998; Fann et al. 2003; Fichtner and Schulze 1992; Glicker et al. 2009; BuRec 1999; Clark et al. 2007; Fichtner and Falken 1988a, 1987a; Latengran-Grarup 1989; Fann and Falken 1988a, 1987a; Latengran-Grarup 1989; Fann and Falken 1988a, 1989; Master et al. 2007; USDA 1970; USGS 1999; White 2011a, 2011b
8 5 CFT § 402.16
9 16 LSC 7536

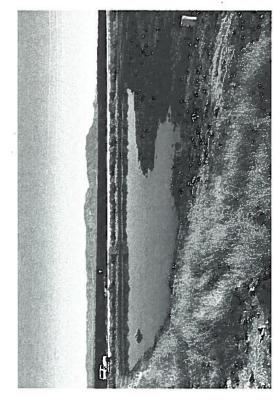
medications, carbamazepine, primidone, and dilantin, and an antibiotic, sulfamethoxasole, in Murray Springs is connected to the San Pedro River via Curry Draw. The seizure medications and the antibiotic most undoubtedly come from the BuRec/Sierra Vista wastewater The BuRec/Sierra Vista wastewater treatment plant is located west of Moson Road across the road from Murray Springs and Curry Draw. On July 15, 2010, BLM found prescription seizure treatment plant effluent now daylighting in Murray Springs.

Geological Survey (USGS), Bureau of Land Management (BLM), US Environmental Protection Agency (EPA), Arizona Department of Environmental Quality (ADEQ) or the City of Sierra Vista, has any concrete plans for further analysis of the daylighting reclaimed wastewater. In June 2009, City of Sierra Vista wastewater facility consultants, Brown and Caldwell, had approximately 2010.11 Reclaimed wastewater contains toxic, nitrogen and phosphate-rich water coming from the breakdown of urine and feces. 12 No involved agency, BuRec, USFWS, US predicted that reclaimed wastewater would reach Murray Springs in "8 or more years" or by

underground, recharge-retarding clay layer is ideal for the plant's original evaporative wastewater processing ponds and its on-site irrigation application of reclaimed wastewater. Conversion of the reatment plant from an evaporative/fingation facility to a recharge facility was very controversial.14 specifically because it is located on top of a recharge-retarding, underground clay layer. 13 The The site of the BuRec/Sierra Vista wastewater treatment plant was originally chosen



treatment facility's non-recharging/non-draining sump back onto wastewater imgated field.
(© Robin Siwer Photography) Image from 1999, showing water being pumped from Sierra Vista wastewater



wastewater treatment facility. Image looks to the west to Moson Road and across the road towards Murray Springs, Curry Draw and the San Pedro River. (© Robin Silver Photography) Image from 1999, showing a non-recharging/non-draining sump at the Sierra Vista

and an antibiotic, sulfamethoxasole, in Murray Springs and the failure of the responsible agencies to address the daylighting reclaimed wastewater come at a very bad time for the San Pedro. The Upper San Pedro Partnership has failed to keep its promise to balance the local water budget by 2011. <sup>15</sup> And recent actions by Sierra Vista, Arizona Department of Water Resources (ADIWR) and Fort Huachuca guarantee that the local groundwater pumping deficit will increase further. <sup>18</sup> The discovery of prescription seizure medications, carbamazepine, primidone, and dilantin

congressional legislative rider. Renzi's rider was designed to protect Fort Huachuca from downsizing in the 2005 Base Realignment and Closure round. The rider exempts the Department of Defense and Fort Huachuca from the ESA legal requirement to Include the environmental baseline in any evaluation of the Fort's activities. <sup>18</sup> On September 10, 2003, the Upper San Pedro Partnership promised to balance the local water budget by 2011 but has failed to do so. 17 The Partnership promised to balance the local water budget in order to secure Senator John McCain's support for Representative Rick Renzi's 2003

In 2007, USGS published a new state of the art modeling template to map and predict groundwater pumping impact on the San Pedro River. <sup>19</sup> USGS did not have the resources to apply its template. Dr. Laurel Lacher has now done so. <sup>20</sup> Her new study is titled, "Simulated Groundwater

BLM 2010b

Brown and Caldwell 2009
Brown and Caldwell 2009
Brown Vista Data Wista 1978, Sterna Vista Herald 1999, USDA 1970, USGS 1999
BuRec 1999, Lacher 2012; Montgomery 1978, Sterna Vista Herald 1999, SwCBD 1999a, Haschuca Audubon 1997, Sterna Vista Herald 1999, SWCBD 1999a, 1999b

<sup>&</sup>lt;sup>15</sup> Sierra Vista Herald 2003, Upper San Pedro Partnership 2010, 2011
<sup>16</sup> ADWR 2012, CBD 2001; Fort Huachuca 2003, Sierra Vista Herald 2006a, 2006c
<sup>15</sup> Sierra Vista Herald 2003, Upper San Pedro Partnership 2010, 2011
<sup>18</sup> Public Law 108-136 (November 24, 2003), Senator John McCain 2003
<sup>19</sup> Lesche 2011

From:

rsilver@biologicaldiversity.org

Sent:

Thursday, February 28, 2013 8:13 PM

To:

Smith, DavidW

Subject:

RE: Sierra Vista WWTP CWA complaint/NOI

Thanks for trying and your prompt response. Their "considering conduction further investigation" is pretty nebulous. They have had nine and one half months already.

Since EPA has the ultimate oversight responsibility for CWA application and enforcement, do you have a policy regarding the handling of states who refuse to apply and enforce the law?

From: Smith, DavidW [mailto:Smith.DavidW@epa.gov]

Sent: Thursday, February 28, 2013 2:22 PM

**To:** <u>rsilver@biologicaldiversity.org</u>

Subject: RE: Sierra Vista WWTP CWA complaint/NOI

Thank you for the information, Dr. Silver. We have discussed this with ADEQ and I understand ADEQ is considering conducting further investigations at this site. I have not gotten a firm answer on whether and when they will do this and whether they will respond to your complaint in writing. I understand you've discussed this with folks at ADEQ. We have asked ADEQ to be informed on whether and when ADEQ intends to do any followup work to evaluate the issue your complaint addresses. Depending upon what ADEQ tells us, we may look into this further ourselves. I'm sorry I don't have anything more firm or specific to tell you at the moment, but I did recommend that ADEQ provide you a clear written answer to your complaint, and I did want to get back to you fairly promptly. Thanks also for the Laihaina complaint. I will let you know if I hear anything further on this that is more clear. Thanks

David Smith
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Center for Biological Diversity
PO Box 1178

Flagstaff, AZ 86002

Email: rsilver@biologicaldiversity.org

From: Sent: rsilver@biologicaldiversity.org Friday, March 01, 2013 1:34 PM

To:

Smith. DavidW

Subject:

RE: Sierra Vista WWTP CWA complaint/NOI

Thank you. does "discretion" have a time limit?

From: Smith, DavidW [mailto:Smith.DavidW@epa.gov]

Sent: Friday, March 01, 2013 12:53 PM
To: rsilver@biologicaldiversity.org

Cc: GREENBERG, KENNETH

Subject: RE: Sierra Vista WWTP CWA complaint/NOI

Hi Dr. Silver-

EPA has the discretion to investigate and act upon any potential violations of CWA requirements, including potential discharges without required permits, regardless of whether the NPDES program is delegated to a particular state. Our Enforcement Division is aware of this situation- Ken Greenberg is the manager of the CWA Compliance Office there. If a delegated state program declines to address a CWA violation, we have authority and discretion to do so. I am copying Ken on our email thread for his information.

Regarding policies about a situation where a state refuses to apply and enforce the law, our regulations also describe criteria for withdrawing a state NPDES program delegation and procedures for doing that. See 40 CFR 123.63 and 123.64.

David Smith
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**Sent:** Monday, February 25, 2013 11:11 AM

To: Smith, DavidW

**Subject:** Sierra Vista WWTP CWA complaint/NOI

Robin Silver, M.D.
Co-founder and Board Member
Center for Biological Diversity
PO Box 1178
Flagstaff, AZ 86002

Email: rsilver@biologicaldiversity.org

From:

Bose, Laura

Sent:

Thursday, September 05, 2013 4:56 PM

To:

Smith. DavidW

Subject:

FW: Notice of Intent to Sue: CBD v Sierra Vista - any analogy to Lahaina - another email for

which you have a copy

Attachments:

Notice of Intent to Sue--City of Sierra Vista.pdf

From: Bose, Laura

**Sent:** Monday, July 15, 2013 7:11 AM

To: PERKINS, SUSANNE; Greenberg, Ken; Albright, David; DavidW Smith

Cc: Woo, Nancy; DIAMOND, JANE

Subject: RE: Notice of Intent to Sue: CBD v Sierra Vista - any analogy to Lahaina

Hi all: We have a call with ADEQ Compliance this week and I asked ADEQ for an update on any action on ADEQ's part.

As I read this article below, it reminds me of Lahaina (much more so than Inarajan) and wonder from your perspective how similar it would be. Since we are requiring an NPDES permit (still?) what if any action do we expect.

Dave and I talked about this particular situation awhile ago and decided to not weigh in on the question of resurfacing downstream..

From: Michael A. Fulton [mailto:Fulton.Michael@azdeq.gov]

**Sent:** Wednesday, July 03, 2013 12:14 PM

To: DIAMOND, JANE; Bose, Laura

Cc: taunt.linda@azdeq.qov

Subject: Notice of Intent to Sue: CBD v Sierra Vista

Jane and Laura: FYI.

As opposed to doing "nothing" as asserted in this notice letter (attached) we have been in dialogue with Sierra Vista to review the factual basis for moving them toward a permit. Prior to this notice, we were not gaining much traction with Sierra Vista.

Perhaps in response to this notice, the City of Sierra Vista has recently contacted us to arrange for a pre-application meeting whereby they could better understand permit requirements. They do rightly point out that the AZPDES permit (if issued) will not establish limits for unregulated pollutants (pharmaceuticals).

A newspaper article also included below.

Mike

# Lawsuit threatened for Sierra Vista 'pollutants'

Shar Porier, Sierra Vista Herald July 3, 2013

Last year, the Center for Biological Diversity (CBD) went after the U.S. Fish and Wildlife Service and the U.S. Bureau of Reclamation for the negative impact that Sierra Vista's wastewater treatment plant may have on the San Pedro River and the endangered Huachuca water umbel.

That legal action went nowhere, according to Center for Biological Diversity (CBD) member Dr. Robin Silver in an interview. So, a new strategy was devised, and now Sierra Vista is the target.

The CBD is putting the city on notice that a lawsuit based on an allegation that the city's wastewater treatment plant, also known as the Environmental Operations Park or EOP, is discharging "pollutants including, but not limited to, nitrogen, pharmaceuticals, antibiotics, and hormones (collectively hereafter as pollutants) into waters of the United States without a permit as required by the federal Clean Water Act," according to the documentation provided.

The center's attorney for the case, Charles M. Tebbutt, states in the notice: "The discharge of reclaimed wastewater into surface water requires a National Pollutant Discharge Elimination System permit or the Arizona state equivalent called the Arizona Pollutant Discharge Elimination System from the Arizona Department of Environmental Quality. The City of Sierra Vista does not have the permit necessary for the discharge of its reclaimed wastewater into the surface water of the San Pedro River."

Tebbutt states, "The pollutants that Sierra Vista has discharged, is discharging and will continue to discharge include, but are not limited to, nitrogen associated with human waste, caffeine, prescription seizure medications such as carbamazepine, primidone, and dilantin, antibiotics such as sulfamethoxasole, and other pollutants. All pollutants being discharged not set forth specifically in this letter are violations that are or should be known to Sierra Vista and may be included in any future legal actions by the Center. Such pollutants may only be known to Sierra Vista."

Staff of the BLM and U.S. Geological Survey (USGS) conducted water quality and groundwater elevation monitoring in June 2010 and noted an increased flow in Curry Draw and elevated groundwater levels attributable to artificial recharge occurring upstream at the EOP. Pharmaceuticals coming from the City of Sierra Vista's reclaimed wastewater are now found in Murray Springs that flows into the San Pedro River. The samples taken indicated the presence of prescription drugs in Murray Springs. Earlier in April, 2010, USGS found seizure medication in the WWTP and in Murray Springs, indicating to the Center that these medications came from the city's percolation of reclaimed wastewater into the ground.

The presence of the pharmaceuticals originating from the wastewater treatment plant confirms the connectivity between the wastewater treatment plant and the San Pedro River," states Tebbutt.

In addition to the pharmaceuticals, nitrogen from the EOP poses possibly more of a threat by inducing growth of non-desert native species that may live along and in the river. It can be a major threat to the endangered Huachuca water umbel, a tiny water plant that requires a very specific water environment, suggests Tebbutt.

The center alleges the city ignored surveys that indicated the site chosen for the recharge basins was not an optimal setting for accomplishing recharge to the aquifer and providing clean water to the San Pedro River.

Since 1999, when a USGS hydrologist indicated that the proposed Sierra Vista recharge project may be sited in the wrong area, more information has been developed. It confirms that the EOP is in the wrong location for recharge and for longterm San Pedro River protection, added Tebbutt.

The current wastewater treatment plant's location originally was chosen as an "ideal evaporative site because it is so poor for recharge as it is situated on top of a low permeability, recharge-retarding, underground clay layer." The USFWS was told by the BOR that it would take 200 years for any effluent from the EOP site to appear in the San Pedro River and that the water umbel would not "likely be adversely" effected, he continued.

However, in 1999, a BOR memorandum stated that some of the percolating water that would otherwise flow subsurface toward the river may actually be intercepted by the clay layer, flow easterly over the top of the layer and daylight at Murray Springs or create new springs between the recharge site and the river.

### The city responds

City Manager Chuck Potucek said in an interview that the matter would be brought before the city council in an upcoming meeting.

"We have been talking with ADEQ for a permit for the wastewater facility, and that may include the discharge to the surface water at Murray Springs. We do not know why the water we are putting into the ground surfaces at Murray Springs," continued Potucek. "We just do not know what the parameters of the permit are yet and we need to have those surface water discussions with ADEQ."

The city does have to file reports with ADEQ on the aquifer water permit, and a number of chemicals, minerals and organics are included, he added.

"I'm not sure if there are requirements for pharmaceuticals in water," noted Potucek.

Scott Dooley, Public Works Director, stated that as far as he knew, there were no such limits on medications found in water on the state or federal level. He also noted that the city's reports on the water quality at the EOP have consistently been well within federal limits.

Once Potucek and Dooley get the information they need from ADEQ and move forward with that permitting process, Potucek will meet with the city council and apprise them of that progress and what the response to the CBD's claims will entail.

## The problem of pharmaceuticals

The enigma of pharmaceutical occurrence in drinking water has especially alarmed the public and regulators despite the fact that relatively few pharmaceuticals have been detected and only at concentrations tens of thousands of times smaller than the therapeutic doses.

Fortunately, pharmaceuticals have the most robust database of any environmental contaminant in terms of human health as these compounds undergo rigorous clinical trials during registration and post-registration monitoring. Although adverse human health consequences from the existing trace levels of pharmaceuticals in U.S. drinking water is highly unlikely (at least based on current knowledge), the resulting impacts to aquatic ecosystems are more nebulous. Several studies have demonstrated that fish exposed to wastewater treatment effluents can exhibit reproductive abnormalities.

Moreover, fish exposed to trace levels of birth control pharmaceuticals in the range of concentrations found in the environment show dramatic decreases in reproductive success, suggesting population level impacts are plausible.

Although there are currently no federal regulations limiting the levels of pharmaceuticals in wastewater or drinking water, the U.S. Environmental Protection Agency has added some pharmaceuticals to the most recent contaminant candidate list. However, only four of the compounds on this list are exclusively used as human pharmaceuticals: three birth control substances and one antibiotic.

Treatment processes can and do reduce the concentrations of pharmaceuticals in water, however, the degree of efficacy is often a function of chemical structure, cost, and energy. All treatment processes have some degree of side effects, such as generation of residuals or bi-products. Thorough life-cycle analyses should be undertaken to ensure that the solutions for environmental control are not more risky than the problem. Source control of contaminants to wastewater treatment plants should always be considered when unknown or questionable occurrence in effluents is predicted or observed. While pharmaceutical take-back programs may not lead to significant reductions in environmental loading, such activities are helpful in communicating to the public that toilets are not suitable receptacles for a diversity of consumer products.

The application of ultra-sensitive analytical technologies to detect anthropogenic substances in water at one trillionth of a gram or less per liter will undoubtedly reveal that nearly every compound known to man will be detectable. The question is not whether these compounds occur, as they certainly will, but rather whether they pose a risk of harm to humans and wildlife that are exposed.

From a report by the National Association of Clean Water Agencies (NACWA) and the Association of Metropolitan Water Agencies (AMWA). Visit the website for more information:

http://www.dcwater.com/waterquality/PharmaceuticalsNACWA.pdf.

From:

Smith, DavidW

Sent:

Thursday, February 28, 2013 1:17 PM

To:

Mindi Cross; Sakow, Rick

Cc:

Bose, Laura; PERKINS, SUSANNE

Subject:

RE: ADEQ response to Sierra Vista WWTP complaint

Attachments:

lawsuit LAHAINA 20120416 COMPLAINT.pdf

Hi Mindi. I understand from Rick that ADEQ is thinking about doing a further investigation of this matter. Once you know your path forward (with or without further work on this issue, do you plan a written response to Dr. Silver? We would recommend you do so. If you do respond, please send me a copy.

Also, I believe you asked about relevant caselaw. The only case I know that's close to on point that has been decided is the Supreme Court's Healdsburg decision (Northern California River Watch v. City of Healdsburg 457 F.3d 1023 (9th Cir. 2006) ) which found that a NPDES permit was required in a situation in which there was a subsurface connection between the discharge and the receiving water. The case also had CWA jurisdictional facets as well.

There are pending cases that are similar. For example, see the attached complaint in the Laihaina, HI case, in which plaintiffs are saying Laihaina needs a permit based on the allegation that their wastewater injected into a UIC well surfaces in the surf zone, comprising a point source subject to NPDES. That case has not been decided.

Hope this helps-- thanks.

Many thanks.

David Smith
Manager
NPDES Permits Office (WTR-5)
U.S. EPA Region 9
75 Hawthorne Street
San Francisco, CA 94602
(415) 972-3464 (office)
(415) 972-947-3545 (fax)

From: Mindi Cross [mailto:Cross.Mindi@azdeq.gov]

Sent: Tuesday, February 26, 2013 7:51 AM

To: Sakow, Rick

Cc: Bose, Laura; Smith, DavidW; PERKINS, SUSANNE

Subject: RE: ADEQ response to Sierra Vista WWTP complaint

Rick:

I will give you a call.

Mindi

From: Sakow, Rick [mailto:Sakow.Rick@epa.gov]

Sent: Monday, February 25, 2013 6:13 PM

To: Mindi Cross

Cc: Bose, Laura; Smith, DavidW; PERKINS, SUSANNE

Subject: ADEQ response to Sierra Vista WWTP complaint

### Good afternoon Mindi,

Staff from EPA's Permits Office were contacted by Dr. Robin Silver regarding his May 17, 2012 citizen complaint to ADEQ and a subsequent FOIA request to EPA. The complaint described discharges from City of Sierra Vista's POTW, which is permitted under an APP. Allegedly, the groundwater flow had resurfaced and discharged into the San Pedro River. John Tinger of our Permits Office discussed this issue with Marnie Greenbie of ADEQ Permitting and he understood that ADEQ had begun an investigation into this complaint. Could you let us know if ADEQ has responded to Dr. Silver's complaint?

For my own understanding, would a facility covered by an APP need an AZPDES permit if was determined that the groundwater flow resurfaced and reached a surface water?

Thank you for any info you have on this. -Rick

Rick Sakow
Clean Water Act Inspector
Enforcement Division
U.S. Environmental Protection Agency, Region 9
75 Hawthorne St. San Francisco, CA 94105
phone: 415.972.3495 <a href="mailto:sakow.rick@epa.gov">sakow.rick@epa.gov</a>

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From:

Smith, DavidW

Sent:

Tuesday, February 26, 2013 6:41 AM

To: Cc: Sakow, Rick; Cross.Mindi@azdeq.gov

Subject:

Bose, Laura; PERKINS, SUSANNE; Tinger, John RE: ADEQ response to Sierra Vista WWTP complaint

Thanks Rick. Mindi, Dr Silver called me yesterday to seek EPA's intervention in this complaint. I need to get back to him sometime this week. He is seeking a written response to his complaint; he did not seem interested in further discussions with ADEQ at this time. I'd like to know whether ADEQ has responded in writing. If so, we'd like a copy of the response as this issue of whether facilities with alleged discharges to surface waters through a subsurface route require NPDES coverage has come up in several states recently. If not, I'd like to know when ADEQ plans to provide a written response. We'll look forward to hearing from you. Thanks

**David Smith** Manager NPDES Permits Office (WTR-5) 75 Hawthorne Street San Francisco, CA 94105 415.972-3464

From: Sakow, Rick

Sent: Monday, February 25, 2013 5:13 PM

To: Cross.Mindi@azdeq.gov

Cc: Bose, Laura; Smith, DavidW; PERKINS, SUSANNE Subject: ADEQ response to Sierra Vista WWTP complaint

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Thank you for any info you have on this. -Rick



United States Environmental Protection Agency

Rick Sakow Clean Water Act Inspector **Enforcement Division** U.S. Environmental Protection Agency, Region 9 75 Hawthorne St. San Francisco, CA 94105 phone: 415.972.3495 sakow.rick@epa.gov

From:

Sakow, Rick

Sent:

Monday, February 25, 2013 5:13 PM

To:

Cross.Mindi@azdeq.gov

Cc: Subject: Bose, Laura; Smith, DavidW, PERKINS, SUSANNE ADEQ response to Sierra Vista WWTP complaint

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United States Environmental Protection Agency

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